

**What is claimed is:**

1. A substrate having edges, the substrate comprising:  
at least one ground layer;  
at least one power layer; and  
at least one conductive plate adjacent to the edges and in electrical contact with  
the at least one ground layer.
2. The substrate as set forth in claim 1, wherein the at least one conductive plate has  
no apertures.
3. The substrate as set forth in claim 2, wherein the substrate supports an integrated  
circuit die.
4. The substrate as set forth in claim 2, wherein the substrate is a printed circuit  
board.
5. The substrate as set forth in claim 1, wherein the at least one conductive plate, the  
at least one ground layer, and the at least one power layer in combination define an  
enclosure to substantially contain electromagnetic radiation from a source within the  
defined enclosure.

6. The substrate as set forth in claim 5, wherein the substrate supports an integrated circuit die.

7. The substrate as set forth in claim 5, wherein the substrate is a printed circuit board

8. The substrate as set forth in claim 1, wherein the substrate supports an integrated circuit die.

9. The substrate as set forth in claim 1, wherein the substrate is a printed circuit board.

10. The substrate as set forth in claim 1, further comprising:  
at least one ground ring in substantially a same layer as the at least one power layer and in electrical contact with the at least one conductive plate.

11. The substrate as set forth in claim 10, wherein the at least one conductive plate has no apertures.

12. The substrate as set forth in claim 11, wherein the substrate supports an integrated circuit die.

12. The substrate as set forth in claim 11, wherein the substrate is a printed circuit board.

13. The substrate as set forth in claim 10, wherein the at least one conductive plate, the at least one ground layer, and the at least one power layer in combination define an enclosure to substantially contain electromagnetic radiation from a source within the defined enclosure.

14. A method to substantially contain electromagnetic radiation from sources within a substrate, the substrate having edges, the method comprising:

forming at least one ground layer to extend to at least the edges;

forming at least one power layer; and

forming at least one conductive plate adjacent to the edges and in electrical contact with the at least one ground layer.

15. The method as set forth in claim 14, wherein the at least one conductive plate has no apertures.

16. The method as set forth in claim 15, wherein the substrate supports an integrated circuit die.

17. The method as set forth in claim 15, wherein the substrate is a printed circuit board.

18. The method as set forth in claim 14, wherein the at least one conductive plate, the at least one ground layer, and the at least one power layer in combination define an enclosure to substantially contain electromagnetic radiation from a source within the defined enclosure.

18. The method as set forth in claim 18, wherein the substrate supports an integrated circuit die.

19. The method as set forth in claim 18, wherein the substrate is a printed circuit board

20. The method as set forth in claim 14, wherein the substrate supports an integrated circuit die.

21. The method as set forth in claim 14, wherein the substrate is a printed circuit board.

22. The method as set forth in claim 14, further comprising:

forming at least one ground ring in correspondence with the at least one power layer so that each ground ring surrounds at least a portion of a corresponding power layer and lies in a same layer as the corresponding power layer; and

extending the at least one ground ring to at least the edges so as to be in electrical contact with the at least one conductive plate.

23. The method as set forth in claim 22, wherein the at least one conductive plate has no apertures.

24. The method as set forth in claim 23, wherein the substrate supports an integrated circuit die.

25. The method as set forth in claim 23, wherein the substrate is a printed circuit board.

26. The method as set forth in claim 22, wherein the at least one conductive plate, the at least one ground layer, and the at least one power layer in combination define an enclosure to substantially contain electromagnetic radiation from a source within the defined enclosure.

27. An apparatus comprising:  
an integrated circuit die;  
a substrate to support the integrated circuit die, the substrate having edges;  
at least one ground layer;  
at least one power layer; and

at least one conductive plate adjacent to the edges and in electrical contact with the at least one ground layer.

28. The apparatus as set forth in claim 27, wherein the at least one conductive plate has no apertures.

29. The apparatus as set forth in claim 27, the integrated circuit die radiating electromagnetic energy, wherein the at least one conductive plate, the at least one ground layer, and the at least one power layer in combination define an enclosure to substantially contain the electromagnetic energy.

30. The apparatus as set forth in claim 27, further comprising:  
at least one ground ring in substantially a same layer as the at least one power layer and in electrical contact with the at least one conductive plate.